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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/588,553

08/07/2006

Richard Curtis

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FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER  
LLP  
901 NEW YORK AVENUE, NW  
WASHINGTON, DC 20001-4413

EXAMINER

BELLAMY, TAMIKO D

ART UNIT

PAPER NUMBER

2856

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/588,553	<b>Applicant(s)</b> CURTIS ET AL.	
	<b>Examiner</b> TAMIKO D. BELLAMY	<b>Art Unit</b> 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 07 August 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 August 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>8/7/06</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Drawings*

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, **the each of the pipettes** must be shown or the feature(s) canceled from the claim(s). No new matter should be entered. Note fig. 3 shows an alternative embodiment of the mechanical part in fig. 1, but does not include a plurality of pipettes.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

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***Claim Objections***

2. Claims 11 and 12 are objected to because of the following informalities:
3. Claim 11, line 3, before the word "unit" insert --recording--.
4. Claim 12, line 3, before the word "unit" insert --recording--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claim 19-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is vague and unclear as to whether the applicant is claiming one or a plurality of pipettes. All of the dependent claims are a dependent of independent claim which only discloses a pipette.

***Claim Rejections - 35 USC § 102***

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1, 3, 5, and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Dorenkott et al. (6,060,320).

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Re claims 1 and 3, as depicted in figs. 1 and 2, Dorenkott et al. discloses defining a predetermined value of volume (e.g., expected volume) (Col. 2, lines 14-15).

Dorenkott et al. discloses measuring at a plurality of times during aspiration the pressure (Col. 3, lines 29-53). Dorenkott et al. discloses that the flow-through pressure transducer (32) has a plurality of fluid ports (52, 54) that are coupled to a shaft (e.g. probe 30) of the pipette (30, 36, and 38). As depicted in fig. 2, Dorenkott et al. discloses the fluid ports (52, 54) are arranged at opposite sides of the pressure sensor (32 and ). Therefore the fluid ports (52, 54) are coupled the shaft (30) at two points of the shaft (30). Dorenkott et al. discloses calculating from the pressure the volume of liquid displaced (Col. 2, lines 7-15). Dorenkott et al. discloses verifying if the volume corresponds to the predetermined value (Col. 2, lines 14-15; 30-31). Dorenkott et al. discloses generating an indication relating to this verification (e.g., visible or audible alarm indicating that the detected volume is different than expected) (Col. 5, lines 1-6).

Re claim 5, Dorenkott et al. a display (e.g., audible or visible alarm) (Col. 5, line 3).

Re claim 6, Dorenkott et al. discloses an **audible alarm, this alarm in broadest interpretation includes an acoustic alarm (Col. 5, line 3).**

### ***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 2, 4, 13-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorenkott et al. (6,060,320).

Re claim 2, as depicted in fig. 1, Dorenkott et al. discloses a pipette (30, 36, 38) whose piston is driven by an actuator (e.g. syringe type pump 28) (Col. 2, line 65). Dorenkott et al. discloses calculating the difference between a calculated volume and the predetermined volume (e.g., expected volume) (Col. 2, lines 14-15). **While Dorenkott et al. does not specifically disclose transmitting a signal to the actuator in order to make it drive the piston such that the volume aspirated corresponds to the predetermined/desired value,** Dorenkott et al. specifically states that a system controller (40) controls the motorized syringe -type pump/dilutor (28) (Col. 3, lines 18-19). Dorenkott et al. also that upon detection of a volume that is different from expected, the system provides a signal. Dorenkott et al. discloses that the calculation of the sample volume may be implemented by a programmed microprocessor (Col. 5, lines 1-6). This teaching clearly infers and/or suggests that the programmed microprocessor can easily be manipulated to transmit a signal to the actuator in order to drive the piston within the syringe-type pump such that the volume of aspirated volume corresponds to the predetermined volume. Evidence of this is found, wherein Dorenkott et al. states that those skilled in the art will realize that **many variations are possible which will still be within the scope and in spirit of the claimed invention (Col. 5, lines 7-11).** Therefore, to employ Dorenkott et al. on a transmitting a signal to an actuator would have been obvious to one of ordinary skill in the art at the time of the invention since this reference

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explicitly teaches the system sending a signal upon determining the calculated volume differs from a expected volume and this same system includes a controller for the purposed of controlling the operation of a syringe-type pump used for the purpose of drawing a volume of the sample into a pipette.

Re claim 4, Dorenkott et al. discloses a flow-through pressure sensor (32). **While Dorenkott et al. lacks the detail of a sensor further capable of supplying a temperature measurement**, Dorenkott et al. specifically states that other pressure sensors having a **suitable fluid and electrical characteristics can be used**. Therefore in the broadest interpretation the other pressure sensors, having suitable electrical characteristics, include a pressure sensor that detects pressure as a function of temperature can be used. Therefore, to employ Dorenkott et al. on a sensor measuring the temperature in the shaft would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches measuring the pressure in the shaft and implementing the use of other types of pressure sensors.

Re claim 13, as depicted in fig. 1, Dorenkott et al. discloses a pipette (30, 36, 38) whose piston is driven by an actuator (e.g. syringe-type pump 28) (Col. 2, line 65). Dorenkott et al. discloses calculating the difference between a calculated volume and the desired volume (e.g., expected volume) (Col. 2, lines 14-15). **While Dorenkott et al. does not specifically disclose the microprocessor is programmed to control the actuator such that the volume aspirated corresponds to the predetermined value**, Dorenkott et al. specifically states that a system controller (40) controls the motorized syringe-type pump/dilutor (28) (Col. 3, lines 18-19). Dorenkott et al. also that upon

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detection of a volume that is different from expected, the system provides a signal.

Dorenkott et al. discloses that the calculation of the sample volume may be implemented by a programmed microprocessor (Col. 5, lines 1-6). This teaching clearly infers and/or suggests that the programmed microprocessor can easily be manipulated to transmit a signal to the actuator in order to drive the piston within the syringe-type pump such that the volume of aspirated volume corresponds to the predetermined volume. Evidence of this is found, wherein Dorenkott et al. states that those skilled in the art will realize that **many variations are possible which will still be within the scope and in spirit of the claimed invention (Col. 5, lines 7-11)**. Therefore, to employ Dorenkott et al. on microprocessor is programmed to control the actuator would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches the system sending a signal upon determining the calculated volume differs from a expected volume and this same system includes a controller for the purpose of controlling the operation of a syringe-type pump used for the purpose of drawing a volume of the sample into a pipette.

Re claims 14 and 15, as depicted in figs. 1 and 2, Dorenkott et al. discloses the device (e.g., pressure sensor 32) forms a module that is fitted to an existing pipette (30,36, and 38).

Re claims 16-18, Dorenkott et al. discloses the device (e.g., pressure sensor 32) includes a verification device (Col. 2, lines 4-31).

11. Claims 7-12, and 19 -22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dorenkott et al. (6,060,320) in view of Olsen et al. (5,857,893).



Re claims 7-10, Dorenkott et al. discloses a system controller (40) controlling operation of a diluter/syringe-type pump (28) (Col. 3, lines 18-20). Dorenkott et al. discloses calculating the sample volume using a programmed microprocessor (Col. 5, lines 1-6). Dorenkott et al. discloses comparing the calculated volume to a desired value (e.g., expected volume) (Col. 2, lines 14-15). While **Dorenkott et al. does not specifically state a transceiver making the microprocessor communicate with the control and recording unit**, Dorenkott et al. specifically states (See col. 5, lines 7-10) that those skilled in the art will realize that many variations are possible which will still be in the scope and spirit of the claimed invention. The use a transmitter as a means of communication between the microprocessor and the controller is still in the scope of the invention, since the operation of the device would operate equally the same. Olsen et al. discloses a controller (e.g., control computer (220) communicated to microprocessor (e.g., pump controller 214) via a transmitter (218) (transmitter receives and sends a signal) (Col. 6, lines 56-63). Therefore, to modify Dorenkott et al. by employing a transceiver would have been obvious to one of ordinary skill in the art at the time of the invention since Olsen et al. teaches transceiver having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Dorenkott et al. and Olsen et al. since Dorenkott et al. states that his invention is applicable to dispensing apparatus and Olsen et al. is directed to for use in a dispensing process and only used to provide the added limitation of a using a transceiver as a means of a microprocessor communicating to a controller.

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Re claim 11, Dorenkott et al. discloses a programmed microprocessor (Col. 5, lines 5-6).

Re claim 12, Dorenkott et al. discloses a programmed microprocessor for calculating the sample volume (Col. 5, lines 5-6). Dorenkott et al. discloses the microprocessor communicates with the controller (40) and a recording unit (Col. 2, lines 4-15). While **Dorenkott et al. does not specifically state a transceiver making the microprocessor communicate with the control and recording unit**, Dorenkott et al. specifically states (See col. 5, lines 7-10) that those skilled in the art will realize that many variations are possible which will still be in the scope and spirit of the claimed invention. The use a transmitter as a means of communication between the microprocessor and the controller is still in the scope of the invention, since the operation of the device would operate equally the same. Olsen et al. discloses a controller (e.g., control computer (220) communicated to microprocessor (e.g., pump controller 214) via a transmitter (218) (transmitter receives and sends a signal) (Col. 6, lines 56-63). Therefore, to modify Dorenkott et al. by employing a transceiver would have been obvious to one of ordinary skill in the art at the time of the invention since Olsen et al. teaches transceiver having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Dorenkott et al. and Olsen et al. since Dorenkott et al. states that his invention is applicable to dispensing apparatus and Olsen et al. is directed to for use in a dispensing process and only used to provide the added limitation of a using a transceiver as a means of a microprocessor communicating to a controller.

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Re claims 19, 21, and 22, Dorenkott et al. discloses a programmed microprocessor for calculating the sample volume (Col. 5, lines 5-6). Dorenkott et al. discloses the microprocessor communicates with the controller (40) and a recording unit, and a pipette (30, 36, and 38) (Col. 2, lines 4-15). While Dorenkott et al. does not specifically disclose a plurality of pipettes, the court held in In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), that the duplicating the components of a prior art device is a design consideration within the skill of the art. Therefore, to employ Dorenkott et al. on a plurality of pipettes would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches verifying the sample volume within a pipette. While **Dorenkott et al. does not specifically state a transceiver making the microprocessor communicate with the control and recording unit**, Dorenkott et al. specifically states (See col. 5, lines 7-10) that those skilled in the art will realize that many variations are possible which will still be in the scope and spirit of the claimed invention. The use a transmitter as a means of communication between the microprocessor and the controller is still in the scope of the invention, since the operation of the device would operate equally the same. Olsen et al. discloses a controller (e.g., control computer (220) communicated to microprocessor (e.g., pump controller 214) via a transmitter (218) (transmitter receives and sends a signal) (Col. 6, lines 56-63). Therefore, to modify Dorenkott et al. by employing a transceiver would have been obvious to one of ordinary skill in the art at the time of the invention since Olsen et al. teaches transceiver having theses design characteristics. The skilled artisan would be motivated to combine the teachings of Dorenkott et al. and Olsen et al. since Dorenkott

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et al. states that his invention is applicable to dispensing apparatus and Olsen et al. is directed to for use in a dispensing process and only used to provide the added limitation of a using a transceiver as a means of a microprocessor communicating to a controller.

Re claim 20, Dorenkott et al. discloses a programmed microprocessor for calculating the sample volume (Col. 5, lines 5-6). Dorenkott et al. discloses the microprocessor communicates with the controller (40) and a recording unit, and a pipette (30, 36, and 38) (Col. 2, lines 4-15). Dorenkott et al. discloses sending a protocol of pipette operations (Col. 3, lines 17-52). Dorenkott et al. discloses recording the performance of the pipette (Col. 2, lines 4-31). While Dorenkott et al. does not specifically disclose a plurality of pipettes, the court held in In re Harza, 274 F.2d 669, 124 USPQ 378 (CCPA 1960), that the duplicating the components of a prior art device is a design consideration within the skill of the art. Therefore, to employ Dorenkott et al. on a on a plurality of pipettes would have been obvious to one of ordinary skill in the art at the time of the invention since this reference explicitly teaches verifying the sample volume within a pipette.

While **Dorenkott et al. does not specifically state a transceiver making the microprocessor communicate with the control and recording unit**, Dorenkott et al. specifically states (See col. 5, lines 7-10) that those skilled in the art will realize that many variations are possible which will still be in the scope and spirit of the claimed invention. The use a transmitter as a means of communication between the microprocessor and the controller is still in the scope of the invention, since the operation of the device would operate equally the same. Olsen et al. discloses a controller (e.g., control computer (220) communicated to microprocessor (e.g., pump controller 214) via

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a transmitter (218) (transmitter receives and sends a signal) (Col. 6, lines 56-63).

Therefore, to modify Dorenkott et al. by employing a transceiver would have been obvious to one of ordinary skill in the art at the time of the invention since Olsen et al. teaches transceiver having these design characteristics. The skilled artisan would be motivated to combine the teachings of Dorenkott et al. and Olsen et al. since Dorenkott et al. states that his invention is applicable to dispensing apparatus and Olsen et al. is directed to for use in a dispensing process and only used to provide the added limitation of a using a transceiver as a means of a microprocessor communicating to a controller.

### ***Conclusion***

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to TAMIKO D. BELLAMY whose telephone number is (571)272-2190. The examiner can normally be reached on Monday - Friday 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Tamiko Bellamy

/TB/

October 6, 2008

/Hezron Williams/

Supervisory Patent Examiner, Art Unit 2856

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